L16 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:139868 HCAPLUS

DOCUMENT NUMBER: 130:196958

TITLE: Preparation of 3-tert-butyl-L-tyrosinamide-containing peptides and related compounds exhibiting a motilin

receptor antagonism

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Tsutomu; Takanashi, Hisanori PATENT ASSIGNEE(S): Chugai Seiyaku Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 144 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.					KIND DATE			APPLICATION NO.						DATE				
WO	0 9909053				A1 19990225			WO 1998-JP3627					19980814					
	W:	AL,	AM,	AT.	AU,	AZ.	BA,	BB,	BG,	BR.	BY,	CA,	CH,	CN.	CU,	CZ,	DE,	
											HU,							
		KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW.	MX,	NO.	NZ,	
											SL.							
		US,	UZ,	VN,	YU,	ZW												
	RW:	GH,	GM,	KE,	LS,	MW,	SD,	SZ,	UG,	ZW,	AT,	BE,	CH,	CY,	DE,	DK,	ES,	
		FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	BJ,	CF,	CG,	CI,	
		CM,	GA,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG							
TW	TW 460478				В		20011021 TW 1998-87113211							19980811				
CA	2301	587			A1		1999	0225		CA 1	1998-	2301	687		1	9980	814	
AU	AU 9886490				A	19990308				AU 1998-86490					19980814			
	7412																	
JP 2000044595				A 20000215				JP 1998-229586						19980814				
JP	3583	928			B2		2004	1104										
EP	1006	122			A1		2000	0607		EP I	1998-	9378:	26		1	9980	814	
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
		IE,																
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PRIORITY APPLN. INFO.:				. :							1997-				A 1	9970	815	
										JP 1	1998-	1868	02	- 1	A 1	9980	528	
										WO 1	1998-	JP36:	27	1	W 1	9980	814	
OTHER SOURCE(S):				MARI	PAT	130:	30:196958											

ΙI

Phenethylamine derivs. represented by general formula [I; wherein A represents an amino acid or α-substituted amino acid residue; R1 represents R6CO, (un)substituted C2-7 linear or branched alkyl, C3-8 alkenyl, or C3-8 alkynyl; R2 represents hydrogen, C1-3 linear or branched alkyl; R3 represents COR7, (un) substituted C1-5 linear or branched alkyl, C2-5 alkenyl, or C2-5 alkynyl; R4 represents H, C1-6 linear or branched alkv1, C2-6 alkenv1, C2-6 alkvnv1, etc.; R5 represents hydroxy or C1-4 n-alkoxy; R6 represents (un) substituted C1-6 linear or branched alkyl, C2-7 alkenyl, or C2-7 alkynyl, optionally benzene- or heterocyclic ring-condensed C3-7 cycloalkyl, (un)substituted C6-12 aromatic ring, (un) substituted C3-12 (un) saturated heterocyclic ring, (un) substituted NH2, (un) substituted linear or branched C1-5 alkoxy, C2-6 alkenyloxy, C2-6 alkynyloxy, etc.; and R7 represents H, (un)substituted C1-5 linear or branched alkvl, C3-7 cvcloalkvl, (un)substituted NH2, OH, linear or branched alkyl C1-6 alkoxy, or C3-7 cycloalkyloxy] are prepared Also claimed are a motilin receptor antagonist, an inhibitor of digestive tract motility, and a remedy for high blood motilin. They are also useful for the treatment of irritable bowel syndrome. Thus, Na-methyl-N-[2-(3-tert-butyl-4-hydroxyphenyl)-1-methylethyl]-Lvalinamide was condensed with Boc-Phe-OH using HOBT and DIC in DMF at room temperature for 2.5 days followed by deprotection with CF3CO2H in CH2Cl2 to

aive

the title compound (II). II in vitro showed IC50 of 1.9 nM for inhibiting the binding of [1251]motilin motilin receptor preparation from rabbit ileum nucous membrane.

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IT 220806-45-1P 220806-47-3P 220806-49-5P 220806-51-9P 220806-57-P 220806-661-1P 220806-63-3P 220806-73-1P 220806-75-7P 220806-77-9P 220806-79-1P 220806-83-5P 220806-83-7P 220806-89-3P 220806-89-3P 220806-91-7P 220806-89-3P
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RN

CN

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220806-95-1P 220806-97-3P 220806-99-5P
220807-01-2P 220807-03-4P 220807-05-6P
220807-07-8P 220807-09-0P 220807-11-4P
220807-19-2P 220808-16-2P 220808-17-3P
220808-18-4P 220808-19-5P 220808-20-8P
220808-27-5P 220808-28-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
   (preparation of 3-tert-butyl-L-tyrosinamide-containing peptide compds. as
  motilin receptor antagonists, inhibitors of digestive tract motility,
  and remedy for high blood motilin)
220806-45-1 HCAPLUS
L-Tyrosinamide, L-phenylalanyl-L-phenylalanyl-3-(1,1-dimethylethyl)-,
mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)
CM
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CRN 220806-44-0 CMF C31 H38 N4 O4 Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220806-47-3 HCAPLUS

N L-Tyrosinamide, L-phenylalanyl-L-valyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CRN 220806-46-2 CMF C27 H38 N4 O4

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220806-49-5 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L-alanyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM

CRN 220806-48-4 CMF C25 H34 N4 O4

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220806-51-9 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L-leucyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM

CRN 220806-50-8 CMF C28 H40 N4 O4

Absolute stereochemistry.

RN 220806-59-7 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L-tyrosyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 220806-58-6 CMF C31 H38 N4 O5

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220806-61-1 HCAPLUS

L-Tyrosinamide, L-phenylalanyl- $(\alpha S)-\alpha$ -aminobenzenebutanoyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 220806-60-0 CMF C32 H40 N4 O4

Absolute stereochemistry.

CM

CRN 76-05-1 CMF C2 H F3 O2

RN 220806-63-3 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-3-(2-thienyl)-L-alanyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM

CRN 220806-62-2

CMF C29 H36 N4 O4 S
Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220806-71-3 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L-isoleucyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM

CRN 220806-70-2 CMF C28 H40 N4 O4

Absolute stereochemistry.

RN 220806-75-7 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-3-cyclohexyl-L-alanyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 220806-74-6 CMF C31 H44 N4 O4

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220806-77-9 HCAPLUS

L-Tyrosinamide, L-phenylalanyl-3-methyl-L-valyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 220806-76-8 CMF C28 H40 N4 O4

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220806-79-1 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L- α -aspartyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 220806-78-0 CMF C26 H34 N4 O6

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220806-81-5 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L- α -glutamyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM

CRN 220806-80-4 CMF C27 H36 N4 O6

Absolute stereochemistry.

CRN 76-05-1 CMF C2 H F3 O2

RN 220806-83-7 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-5-carboxy-L-norvalyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 220806-82-6 CMF C28 H38 N4 O6

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

CN

RN 220806-85-9 HCAPLUS

L-Tyrosinamide, L-phenylalanyl-L-asparaginyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CRN 220806-84-8 CMF C26 H35 N5 O5

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220806-87-1 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L-glutaminyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 220806-86-0 CMF C27 H37 N5 O5

CM 2

CRN 76-05-1 CMF C2 H F3 O2

F-C-CO₂H

RN 220806-89-3 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-6-oxo-L-lysyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM :

CRN 220806-88-2 CMF C28 H39 N5 O5

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

F-C-CO₂H

RN 220806-91-7 HCAPLUS

N L-Tyrosinamide, L-phenylalanyl-(2S)-2,4-diaminobutanoyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 220806-90-6 CMF C26 H37 N5 O4

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220806-93-9 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L-ornithyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM :

CRN 220806-92-8

CMF C27 H39 N5 O4

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220806-95-1 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L-lysyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM

CRN 220806-94-0 CMF C28 H41 N5 O4

Absolute stereochemistry.

CRN 76-05-1 CMF C2 H F3 O2

RN 220806-97-3 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L-seryl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM I

CRN 220806-96-2 CMF C25 H34 N4 O5

Absolute stereochemistry.

CM :

CRN 76-05-1 CMF C2 H F3 O2

CN

RN 220806-99-5 HCAPLUS

L-Tyrosinamide, L-phenylalanyl-L-homoseryl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CRN 220806-98-4 CMF C26 H36 N4 O5

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220807-01-2 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L-threonyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 220807-00-1 CMF C26 H36 N4 O5

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220807-03-4 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-(2S)-2-aminobutanoyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 220807-02-3 CMF C26 H36 N4 O4

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220807-05-6 HCAPLUS

L-Tyrosinamide, L-phenylalanyl-L-norvalyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 220807-04-5 CMF C27 H38 N4 O4

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220807-07-8 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L-methionyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 220807-06-7 CMF C27 H38 N4 O4 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220807-09-0 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L-histidyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM

CRN 220807-08-9 CMF C28 H36 N6 O4

Absolute stereochemistry.

CRN 76-05-1 CMF C2 H F3 O2

RN 220807-11-4 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L-tryptophyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 220807-10-3 CMF C33 H39 N5 O4

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 220807-19-2 HCAPLUS

L-Tyrosinamide, L-phenylalanyl-N-methyl-L-valyl-3-(1,1-dimethylethyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220808-16-2 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-L-valyl-3-(1,1-dimethylethyl)-N α -methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220808-17-3 HCAPLUS

CN L-Valinamide, L-phenylalanyl-N-[(1R)-2-[3-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-methylethyl]-N2-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220808-18-4 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-N-methyl-L-valyl-3-(1,1-dimethylethyl)-N α -methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220808-19-5 HCAPLUS

CN L-Valinamide, N-methyl-L-phenylalanyl-N-[(1R)-2-[3-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-methylethyl]-N2-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220808-20-8 HCAPLUS

CN L-Valinamide, L-phenylalanyl-N-[(1R)-2-[3-(1,1-dimethylethyl)-4hydroxyphenyl]-1-methylethyl]-N,N2-dimethyl- (9CI) (CA INDEX NAME)

- RN 220808-27-5 HCAPLUS
- CN L-Tyrosinamide, N-[(2S)-2-amino-3-phenylpropyl]-L-valyl-3-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

- RN 220808-28-6 HCAPLUS
- CN Butanamide, N-[(1S)-2-amino-1-[[3-(1,1-dimethylethyl)-4hydroxyphenyl]methyl]ethyl]-2-[[(2S)-2-amino-3-phenylpropyl]amino]-3methyl-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

- IT 220808-36-6P 220808-44-6P 220808-74-2P
 - 220808-80-0P 220808-85-5P 220808-89-9P
 - 220808-90-2P 220808-96-8P
 - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 - (preparation of 3-tert-butyl-L-tyrosinamide-containing peptide compds. as motilin receptor antagonists, inhibitors of digestive tract motility, and remedy for high blood motilin)
- RN 220808-36-6 HCAPLUS
- CN L-Tyrosinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-phenylalanyl-N-methyl-L-valyl-3-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)

RN 220808-44-6 HCAPLUS

CN L-Tyrosinamide, N-[(phenylmethoxy)carbonyl]-L-phenylalanyl-L-valyl-3-(1,1-dimethylethyl)-N α -methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220808-74-2 HCAPLUS

 $\begin{array}{lll} & & L-Tyrosinamide, & N-[(2S)-3-phenyl-2-[[(phenylmethoxy)carbonyl]amino]propyl]-L-valyl-3-(1,1-dimethylethyl)- (9CI) & (CA INDEX NAME) \\ \end{array}$

Absolute stereochemistry.

RN 220808-80-0 HCAPLUS

CN 2,5,8,11-Tetraazadodecanedioic acid, $9-[(3-(1,1-\text{dimethylethyl})-4-\text{hydroxyphenyl}]\text{methyl}]-6-(1-\text{methylethyl})-7-\text{oxo-}3-(\text{phenylmethyl})-1,1,12-bis(\text{phenylmethyl}) ester, (3S,6S,9S)- (CA INDEX NAME)}$

Absolute stereochemistry.

- RN 220808-85-5 HCAPLUS
- CN L-Valinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-phenylalanyl-N-[(1R)-2-[3-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-methylethyl]-N2-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

- RN 220808-89-9 HCAPLUS
- CN L-Tyrosinamide, N-[(phenylmethoxy)carbonyl]-L-phenylalanyl-N-methyl-L-valyl-3-(1,1-dimethylethyl)-N α -methyl- (9CI) (CA INDEX NAME)

- RN 220808-90-2 HCAPLUS
- CN L-Valinamide, N-(1,1-dimethylethyl)-L-phenylalanyl-N-((1R)-2-[3-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-methylethyl]-N2-methyl- (9CI) (GA INDEX NAME)

Absolute stereochemistry.

- RN 220808-96-8 HCAPLUS
- CN L-Valinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-phenylalanyl-N-[(1R)-2-[3-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-methylethyl]-N,N2-dimethyl- (9C1) (CA INDEX NAME)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT